



NCRI
INFORMATICS
INITIATIVE



NCRI
National
Cancer
Research
Institute

A Moment to Reflect - NCRI Informatics Initiative 2010 and beyond

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June 2010

What makes informatics important?

It is **NOT** the pursuance of
information perfection

It **IS** the pursuance of disambiguation and
interoperability for the benefit of finding
and (re-)using information efficiently

Which photo is related to the NCI?



Directorate of Cancer Research
National Cancer Research Institute

NCRI Initiative Achievements to date

- Public launch of the ONIX information portal
- Wide adoption of data-sharing policies amongst the NCRI Partners
- Extensive, active national and international collaborations ongoing
- Established annual international conference
- Technical collaboration with the U.S. caBIG®, British Library, European Bioinformatics Institute, onCore UK, University College London, Leeds Institute of Molecular Medicine (LIMM), University of Oxford..... etc.

Our approach is still the same

Cultural Change through
Community Alliances



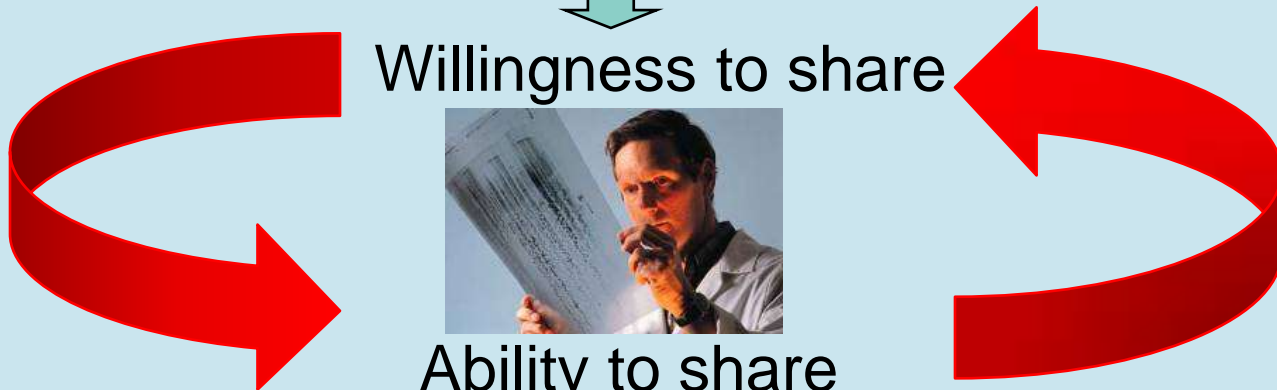
Willingness to share



Ability to share



Build a collaborative 'network
of networks' through
Platform Development

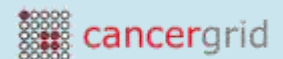


Still the same for the researcher

- What exists and what does it contain?
- How do I find and extract the exact information I need?
- How do we work more effectively across different research domains and disciplines?
 - Translational research
 - Stratified (personalised) medicine etc
- What can I do to help?

So what has changed?

- No longer ‘What is informatics?’ it is now ‘How do we apply informatics?’
- Great exemplars now exist of what can be achieved
- Coordination now key as we have seen an explosion of work in this area



ELIXIR

EUROPEAN LIFE SCIENCES INFRASTRUCTURE FOR BIOLOGICAL INFORMATION



Initiative Focus

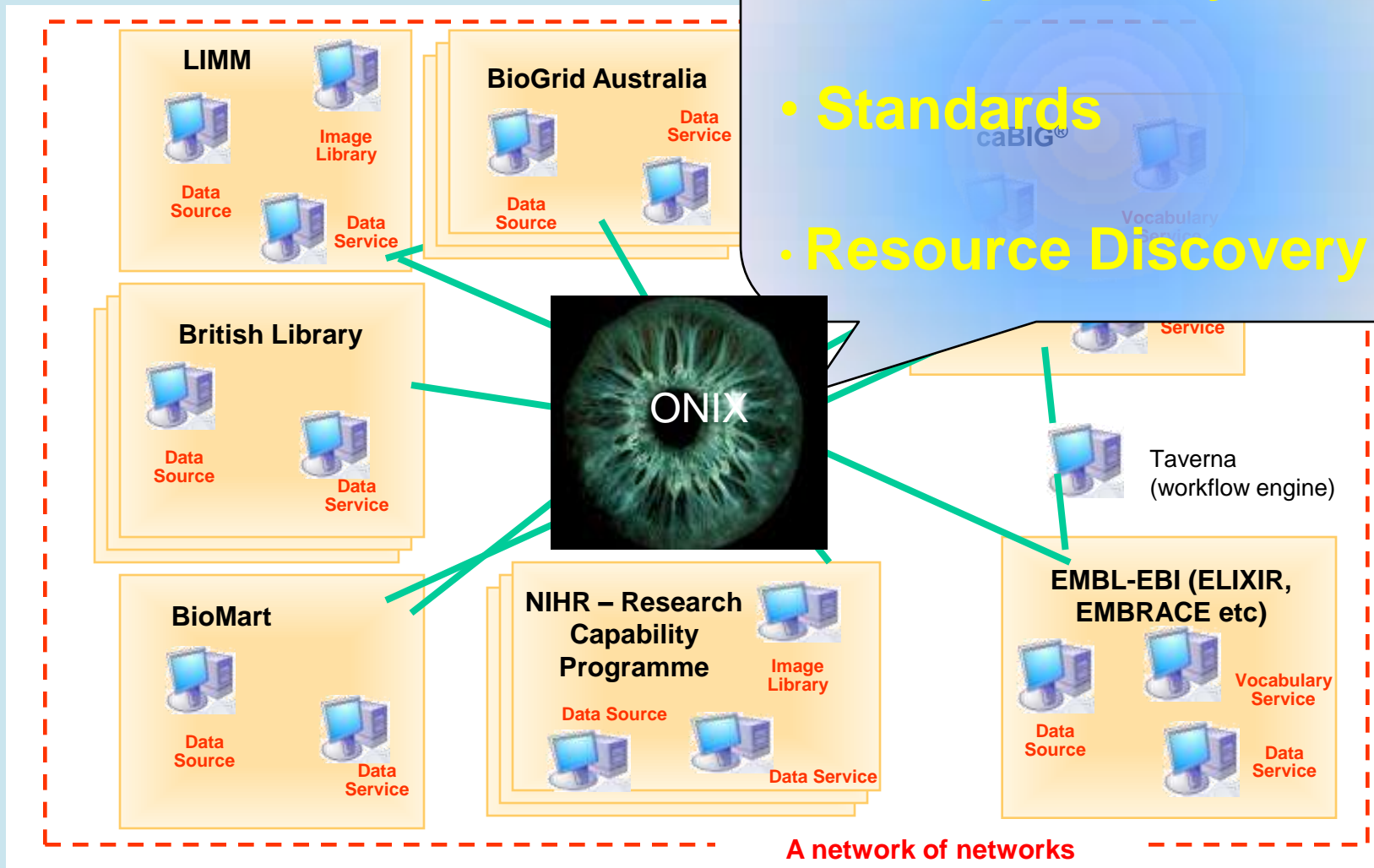
- To promote a ‘cultural change’ to continue to increase the willingness of researchers to share information.
- To facilitate the development of a consistent framework of policies that provide a requirement to share (with the credit for doing so) coupled to a set of conventions that govern re-use and citation of other’s work.
- To promote, and provide consistent information about, data standards.

Initiative Focus

- Promoting the means to discover, browse and create new information sets from existing resources. Key components:
 - Joint programme of work packages with NIHR Research Capability Programme and the NCRI National Cancer Intelligence Network to facilitate the delivery of registry and NHS data sets to researchers
- “Connecting” existing resources and informatics initiatives by promoting increased levels of interoperability between these ‘information islands’ - to form a “network of networks” nationally and internationally.

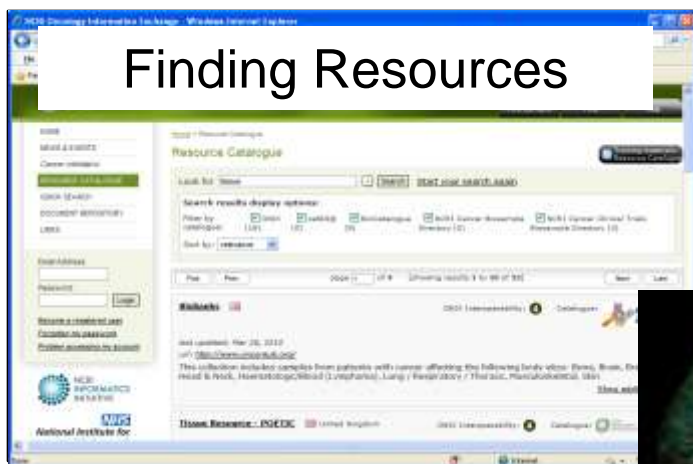
What is our Vision?

- Interoperability
- Standards
- Resource Discovery



What is ONIX?

Finding Resources

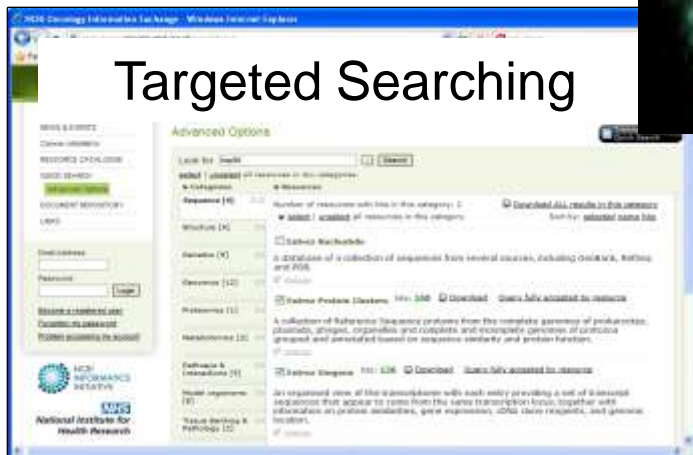


What Standards to Use



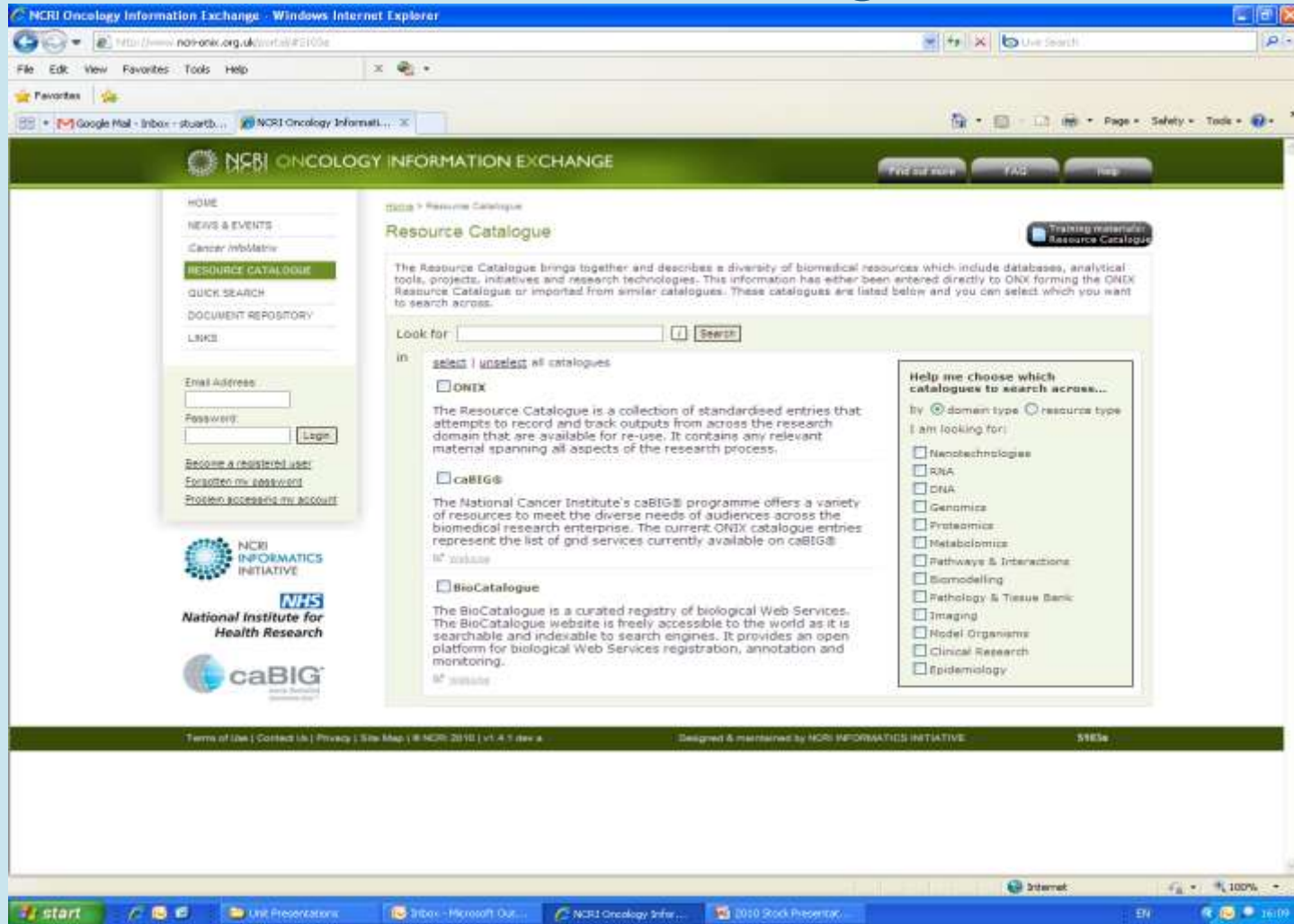
ONIX

Targeted Searching



'Biologically Aware'
Search, Linkage and
Data Extraction

ONIX – Resource Catalogue



The screenshot displays the NCRI Oncology Information Exchange website in a Windows Internet Explorer browser window. The page title is "NCRI ONCOLOGY INFORMATION EXCHANGE". The main content area is titled "Resource Catalogue" and includes a search bar with the text "Look for" and a "Search" button. Below the search bar, there are three sections: "ONIX", "caBIG", and "BioCatalogue", each with a brief description and a "New" link. To the right of these sections is a box titled "Help me choose which catalogues to search across..." with radio buttons for "domain type" and "resource type", and a list of categories with checkboxes. The left sidebar contains navigation links such as "HOME", "NEWS & EVENTS", "Cancer Information", "RESOURCE CATALOGUE", "QUICK SEARCH", "DOCUMENT REPOSITORY", and "LINKS". At the bottom of the page, there is a footer with "Terms of Use", "Contact Us", "Privacy", "Site Map", and "© NCRI 2010 | v1.4.1 dev a". The browser's address bar shows the URL "http://www.ncronix.org.uk/ncritab/RSV06".

‘Catalogue of Catalogues’

- Original ONIX catalogue still there with a wide mix of entries
- Real power has been stimulation of others to catalogue what they have
 - caBIG[®] services
 - EMBL-EBI/Manchester University Biocatalogue
 - UK cancer tissue banks
 - UK clinical trial generated cancer tissue collections
 - NHS Information Centre (coming soon)

Cancer InfoMatrix



Data Standards Development Activity:

High

Medium

Low

Cancer InfoMatrix

- Designed to promote awareness of data standards
- Simple, visual tool to assist researchers in identifying appropriate standards for their area of research
- Collaborative work with U.S. caBIG® and U.S. National Center for Biomedical Ontologies
 - Consistency in information being provided no matter which organisation you see information from
 - Promotion of **data interchange standards** as important as vocabularies in allowing the sharing of information

Strategic Collaboration

- Promote interoperability internationally
- De-focus issues with boundaries of
 - Clinical, bench, publishing
 - Data, tools, literature
 - Different informatics infrastructures

Our strategic partnerships key - NCI/caBIG[®],
EMBL-EBI/Manchester University, UCL,
British Library, UK NHS and beyond

Key Focus - Clinical and Population Data

- Collaboration with
 - NIHR Research Capability Programme
 - NCRI National Cancer Intelligence Network
- Working across several focus areas
- Make these rich and significant UK national assets available to researchers
- Underpinned by joint funding by the NIHR RCP and NCRI Partners in 2010/2011

In Summary

- Business as usual, but some new, and exciting, areas
- Cancer focus, but moving beyond cancer
- Continue to demonstrate how informatics, coupled to a willingness to want to share, supports better and more efficient research

Not to be afraid to reflect and
refocus periodically

Thank You

- Come and see ONIX on our stand
- ONIX: <http://www.ncri-onix.org.uk>
- Initiative: <http://www.cancerinformatics.org.uk>